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CRAIG ZELLER: Welcome back to
Roane County High School. My name is
Craig Zeller and I'm the EPA manager in
charge of the Phase 2 and Phase 3
components of the TVA ash cleanup project.
Tonight we're going to kind of talk about
Phase 3. Some folks have been hearing a
lot about it in the paper, listening to it
on the news, as far as some projections
we've made and some decisions that have
been made on the actual third and final
decision for this project. Give me the
next slide.

A little background on what we're going to talk about tonight. First of all, I want to kind of give you all just a little brief update. One slide, two slides, I think I have 17 total slides here. I hope to keep this to 30 minutes or less. I'm going to give you a little bit of update on where we're at, current status, the Phase 1 dredging work that's been done, Phase 2 work that's ongoing and then we're going to kind of shift gears into the Phase 3, river system sampling

analysis plan stuff and kind of provide some summaries of what we've found with regard to risk assessment for human health and ecological risk. Kind of review the alternatives that we talked about back in August as far as the alternatives that we developed and evaluated to address those ecological and human health risks and then get into really the selected remedy which is Alternative 1, Monitored Natural Recovery. You've read that in our press releases and on the news.

So where are we at? As you recall this project is being cleaned up under Superfund authority. It's not a Superfund site. It's not on the national priorities list, but we are using the CERCLA or Superfund authority to clean this up.

We did split it up into three phases, was kind of our strategy on this, the framework. The first phase was the actual dredging work. You all remember a colleague of mine, Leo Francendese, that was in charge of that. It was about an 18-month project, 3 and a half million

cubic yards of ash. 4 million tons of ash then was processed on site, put on 414 trains, ran 320 miles or so down to the Arrowhead Landfill in Alabama. And the river was -- that work was largely completed in May of 2010. The last train arrived in Arrowhead the first of December of 2010. So that phase has been done.

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Phase 2 is ongoing. It started immediately after the Phase 1 work. Phase 2 work, as you recall, is getting all the material out of the north embayment and the middle embayment. It's kind of shallow backwaters of Watts Bar. That was dealing with around 2.8 million cubic yards of material. Based on previous engineering evaluation, cost analysis work that was done in May of 2010, the decision was to put that stuff back in a re-enforced cell to withstand seismic or earthquake loading. I've got another slide to kind of tell you where we're at on that.

Then Phase 3 is really the purpose we're here tonight is to talk about when

Leo pulled the dredges out of the river, there was an estimated 500,000 cubic yards of material that was remaining in the river system, primarily in the lower Emory River. The reason that material was kind of left there for me, I guess, was that it is commingled with some Cesium 137 legacy waste that came from the DOE, Department of Energy complex up there at Oak Ridge and so we thought we'd take a couple of years and just study, you know, what the risks are posed by this material. Next slide, please, Michael.

Where are we at on Phase 2? Phase 2 is ongoing. It's been going -- we've been at it here for a couple of years.

We're making real good progress. I think the first thing we accomplished was getting the north embayment ash free.

It's the body of water that sits north of Swan Pond Circle Road, 60 or 70 acres in size. We worked on it the majority of 2011. By the end of 2011, we had pulled just over a million cubic yards of material out there. Through confirmation

sampling, we're looking at making sure that we're getting down to native material, brown dirt. EPA and TDEC declared that excavation sufficient and largely ash free by the end of 2011. It now is full of water.

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We then shifted our focus this year into the middle embayment. The middle embayment is going real well. We've got it about, what, about 73, 75 percent complete. We hope to have the majority of ash, the bulk of the ash completed, the excavation in that area by the end of this calendar year. We'll probably still be doing some more removals up through the spring. That body of water, the middle embayment, won't be filled with water really until the end of the project because we're still trying to tap and close this cell. We've got about another 300,000 or so to go. As long as the weather holds, we hope to be done with the majority of that by the end of the year, certainly by early 2013.

We've been scraping the top of the

relic. The top of the relic has to come down. That's the body of the ash cell that did not move during the slide. For those that have been by the site here recently, you can see where we're kind of shaving that corner on the south, what is that, west corner there right by the railroad tracks so the perimeter wall can come around there. You can see that's starting to cut down considerably moving, god, 5, 6, 7000 cubic yards a day from that area. So it's really changing day to day.

All that ash then is going back into the dredge cell. We've got -- of all the ash that we've excavated, a little over 2 million of cubic -- 2 million cubic yards of ash being placed back in the cell. It's being laid out in small 1- to 2-foot lifts with bulldozers and then rolled with a smooth drum roller. We hope to be done with all the ash stacking and excavation in late 2013.

Once all the excavation is done, once the ash has been placed back in the

cell, we have to finish the wall. All right. You remember there's an 11,500-foot wall, 2 miles around this thing, that is going down 50 to 70 feet and that's been designed to withstand seismic loading. What was one of the contributing factors in this failure in the first place was liquefaction of foundation ash. So this wall is going down into the bedrock to make sure that if these design quakes happen that we won't have what occurred back in December 22, 2008.

The wall is going actually really well. We're out there on what we call Segment 2, it's along the river, river front. It's over -- we started full scale construction on the wall in July of 2010. We're about 50 percent, 52 percent done. So we hope to be done with that maybe late 2013. It might bump into 2014.

Once we're done with the wall, the very last piece of work we're going to do out here is really kind of more civil engineering. This landfill will be capped

and closed like virtually every other municipal solid waste landfill. It's going to get a 40-millimeter thick liner.

About 220 some acres of liner has got to be placed down. Then all the seams have got to be welded so it's impermeable. On top of the liner will go a drainage layer.

On top of the drainage layer will go 2 feet of clay. Then it will be seeded and grassed and then closed out for good.

All that clay, it's going to be a million cubic yards of clay. We'll be doing most of this work in calendar year 2014. All that clay is coming from property that TVA has purchased. It's the Gupton Farm just north of Swan Pond Circle Road. All those clay trucks will not be on Swan Pond Road or Swan Pond Circle Road. They're actually going to be on our job site. We won't be bothering you with that construction traffic.

So we're actually kind of coming up on the fourth year anniversary. Like I said, we've probably got about another two years to go. It looks a lot different.

It looks a heck of a lot better than it did. That's for sure. I think some of the -- my pointer is not working very good.

Here is what I want to point out.

This is the north embayment. This is

where I said excavation here was completed

in 2011. We're now working in this area.

Those that frequent these roads often, you

can start to see a lot of brown dirt out

there. That's a good thing. That means

that we're getting down to the original

bottom.

There are some interesting features showing up in this western section of the middle embayment. If you've been by there, you see a bunch of little rock holes or rock piles and little pits and bunkers. Those are actually fish habitat, fish structure that's being put back in that middle embayment so we can encourage the fish to come back in when water comes back in this area.

All the material that's being excavated from the north embayment and

from the middle embayment is being stacked in this general area. This is the central cell. There's about 1.3 million cubic yards been put back in here. This is what we call the lateral expansion. I think the numbers on that were around 800,000.

We've got about 400,000 in here.

So the section of wall, this section of wall is completed, this section of wall is completed and we're working right along here now. Then starting, oh, early December, we're going to start running down this corridor. So wall construction is going real well. Like I said, about half, half completed. Let me back up to one more thing.

One thing I wanted to point out is you will see a lot of movement in this area. This corner of the relic is being cut down considerably so we can get our wall to turn around and make this corner here. We had to get that back a little bit. All right. Next slide, please.

Okay. So moving on. That's kind of the Phase 1, Phase 2 updates. So what

are we doing with regard to Phase 3.

Phase 3 was a two-year, \$40 million study, again, to kind of focus on the residual ash that was left after Phase 1. It covered I believe a big area. It was about 6 miles of the Clinch River. Here's the confluence -- or excuse me. 6 miles of the Emory River. Then the Emory River hits the Clinch and it was about 4 miles of the Clinch and then, you know, 4 or 5 or 6 miles of the Tennessee River was kind of our study area. Next slide, please.

As I've mentioned before, it was kind of the mother of all eco studies. It was certainly the biggest study I've ever overseen for EPA. Again, two years, \$40 million, 16,000 samples. Of those samples that were collected, there was almost a half a million analyses done on that work. It was 20 different measurement endpoints on the biology side. It was six species of fish, four species of birds, three species of turtles, three species of frogs, raccoons, mayflies, snails and water plants, or aquatic vegetation.

That's what was actually analyzed for coal ash related constituents.

In addition to all that work, it involved -- there was also a multi kind of disciplinary of people. Besides state and federal agencies involved that are all listed here, TDEC, TWRA, Oak Ridge
National Labs, USGF, the Corps, Fish and Wildlife Service, it also involved about ten universities that were brought. It kind of involved some independent folks.
Virginia Tech was involved with tree swallow work, Tennessee was involved with raccoons, too, and Appalachian State was doing some work, as well. Next slide, please, Michael.

In addition to all the biology that
I mentioned, 20 different things were
actually sampled for ash-related
constituents. There was also what we call
the abiotic side, just, you know, the
nonliving things that are involved. You
know, what's the groundwater quality like
in the cell. I think I showed you a slide
from the previous public meeting we had

that the groundwater quality in the cell largely meets drinking water standards.

There were literally thousands of samples collected for surface water. All right. We're very interested in the quality of the water in Watts Bar Reservoir and the Emory River and the Clinch River to make sure it's protected and meets Tennessee water quality standards.

There was a bunch of work done with mapping ash. There was hundreds of samples collected looking for where is the ash, where is it located in this river system. In addition to, you know, mapping where the ash is at, there was also very extensive sediment transport modeling that was done. It was called two-dimensional modeling. So it was in the X and Y, you know, dimensions. We went to the U. S. Army Corps of Engineers for that. It's an outfit called the Engineer Research and Development Center. They're out of Vicksburg, Mississippi. It was a very extensive modeling effort that was done.

It actually ran on one of the high performing computers down there, DOD. I think some of the runs were taking on the order of days to actually run these simulations. So it was pretty -- there was a lot of science thrown at this study. A lot of that modeling work was done to help or at least to evaluate what monitored action recovery would look like, where does sediment and ash go over a 30-year period if we just leave it alone. There was a lot of sediment toxicity work that was done. I think I mentioned, you know, the living organism work that was done.

So where is this ash? Well, we've discovered, you know -- at the end of Phase 1 our estimates where we think there's about 500,000 cubic yards out there, once we went and did, you know, the more extensive studies, we were pretty close. Our estimate is about 510,000 cubic yards over about 200 acres of this river system. 85 percent of that material is in the Emory River, the lower reaches

of the Emory River, kind of really the last 3 miles or so from the plant on down to the Clinch River. That didn't surprise us because a good chunk of that area was not dredged by Leo and TVA in the first Phase 1 dredging operations.

About 50 percent of that material is in the upper section of the Clinch here just downstream of the Emory. As we talked back in the public meeting on August 21st about the EE/CA, this is the area where we have a lot of commingled cesium.

The interesting part about this -and people have asked me this and for
those who don't know, I'll go over this
real quick. When the fossil plant was
constructed in the '50s, the early '50s,
there was an underwater weir that was
constructed here right at the bottom of
the Clinch. The Clinch River water is
colder than Emory River water and that's
what TVA would like to use for their
cooling water.

So when this plant is operating at

or near capacity, burning all nine burners and river flows in the Emory are low, this section of the Emory actually runs upstream. Okay. It actually would be a kind of a suction process. It actually is sucking that colder Clinch River up there — water up there for cooling water. And that's how through that sucking process or that kind of vacuuming, that's how all that stuff that was coming down the Clinch from DOE kind of got sucked up in here through that hydrodynamic process. Next slide, please.

So after all this data was collected, there was a tremendous amount of effort that went in to say, okay, what does it mean? Okay. It's always easy to collect the data, but sometimes it's not so easy to put it into the filters and try and assess what's this mean from a human health and ecological risk standpoint.

Everything checked out fine. I mentioned there were 20 species that were actually analyzed for coal-related constituents, coal ash-related

constituents. At the end of the day when we looked at all this stuff, what we're left with here is a low to moderate risk for bugs. The fancy term, the 50 cent term is benthic macroinvertebrates. We looked at two types of bugs. One was called hyalella azteca. It's an anthropoid that lives in sediment. The other one was chironomus dilutus. It's a midge that also lives in the -- you know, in that. There's a mayfly.

What we saw was when you're doing these environmental studies, it's always important to compare how things perform in what you think are the impacted areas and then compare them to how these bugs are performing in the unimpacted area. And what we saw here, there was a little difference between how the bugs grew and how the bugs survive. They did grow, they did survive, but just not as well as they did in the background stations, or the reference stations, the stations not impacted by this coal ash release. We also saw a very low risk to any birds that

may eat those bugs that emerge from the sediment. Okay. Primarily we're talking about the tree swallow and this killdeer.

So that's kind of what we're -- you know, the summary. The take home message, I think, on the ecological risk is a lot of things sampled. Fish checked out okay, birds checked out okay, frogs, turtles, vegetation, mayflies, snails all looking pretty good. We're left with just a little bit of risk here with the bugs that live in the sediment.

I think it's important to know or to note that these were laboratory tests. All right. We took sediment, took them back to the laboratory and performed these tests for growth and survival. So we showed a little bit of difference in the laboratory. But once you went to the field -- we went to the same locations in the field where that sediment was collected and then actually looked in the field to see how they did.

Once we scooped sediment from those areas in the field showing some low to

moderate toxicity, there were lots of bugs, so plenty of abundance, and there was also varied types or many types of bugs. So there's also a lot of diversity. So we're seeing the abundance and the diversity actually in the field. We're showing some of the toxicity actually in the laboratory. So that's why when we say low to moderate, that's what kind of leads us there. Again, laboratory may be an impact; in the field we're not quite seeing that.

The next slide in regard to human health. I guess really no big surprises for us here. We did open the river for recreation back in May of 2010. So we kind of assumed that recreation was going to be okay or we wouldn't have done that. EPA and the State would not have opened it up for recreation. Our human health risk assessment that was done as part of this work did confirm that, yes, recreation is fine, beachcombing is fine. Use the resource. There are no risks. All right. There are acceptable risks associated with

that. There are no risks associated with the residual ash.

What we did confirm is that there was a fish advisory on this water body prespill. That fish advisory was on the water body because, again, legacy issues associated with Oak Ridge, primarily because of PCBs ands mercury. So our study did confirm that, yes, that fish advisory or that continued fish advisory is still warranted. So we would caution people to limited the amount of fish that they eat. In some species it's a flat out do not eat and other species it's kind of eat just one meal a month. So we would caution you to still heed that advice.

Our study did agree rather well with the Comprehensive Medical Screening work that was done by Oak Ridge Associated Universities. That work was done and released in August of 2010. You know, as you recall, I think there was about 210 individuals that were screened for -- using urinalysis work, using blood work, using cardiopulmonary work, it was a full

medical screening. That ORAU study indicated or included no adverse health impacts because of the spill. That was also consistent with the Tennessee Department of Public Health Assessment that was released in 2010, as well.

So we went through all this. I was last up here talking about these alternatives and our findings, I believe the meeting up here was August 21st. We developed then -- you know, so we have these low level ecological risks that have to be addressed. So I have an ecological risk trigger that Superfund, my law that I work under, says I have to do something about, develop remedies to remediate or eliminate that risk.

So here is what we intend to do with our selected remedy. We want to protect those invertebrates or that bug population because of arsenic and selenium that are related to the ash content. We talked about the birds, that the birds that potentially eat those bugs might have a low level risk. We also want to protect

those shoreline feeding birds and aerial feeding birds that are potentially eating insects coming out of that sediment interface.

We want to restore the ecological function and recreational use back to pre-release conditions. I would say that we've already restored the recreational use and in a number of years, we hope to get the ecological function back to that pre-release condition, as well.

Then lastly is that if we generate waste, if we decide to dredge or we decided to do something to actually try to move this material, we make sure that we handle that material properly in accordance with all the state, local and federal regulations.

So back in August we talked about and we offered up for public comment, you know, here were the three alternatives that we proposed and actually released for public comment. We were very interested in what you folks -- what you wanted to do. So this was ranging from, say, the

least costly and the least intrusive to the most costly and the most intrusive.

Alternative 1 is monitored natural recovery. It's a fancy term for we're going to leave it to nature, let it cover it up and we're going to monitor it, you know, over a period of time to see how this system responds and recovers with time.

The second alternative that we proposed for y'all to consider were actually capping remedies. We had kind of an Alternative 2A which capped it all for a cost of about \$45 million. Then we had kind of an optimized capping remedy that capped just 160 acres or a fraction of that material in the areas of greatest ecological significance. It was a little cheaper, around 39 million.

Then on the high end there, our removal alternative that we looked at was dredging, kind of more of the same that was done in Phase 1. We had -- again, kind of like the Alternative 2 series, we had a let's dredge it all, 440,000 cubic

yards at about a cost of about 180 million. Then we added Alternative 3B which was, you know, again, kind of dredge -- dredge the areas of greater ecological significance. That cost would be 4 million.

So we ran -- we had originally set up a 30-day public comment period that was going to run from August 9th to

September 10th. We had numerous requests for an extension on that. We got requests for extensions from Ron Woody, the Roane

County CAG as well as the ERB, Roane

County Environmental Review Board. We said sure. We extended that an additional 30 days and we ran a total of 60 days of comments on this from August 9th to

October 10th.

When the comment period expired, we looked at what we got. We got a total of five comments. We got three -- or two comments from the Roane County

Environmental Review Board and we got a set of comments from the Roane County

Community Advisory Group. Members of all

of these groups are here tonight. Then we got comments from three individuals. Lynn Roberson, I think I saw her floating around out there. Hi, Lynn. Then Don Simon who is a CAG member submitted a set of comments as a private citizen as did Joni Morgan and Joni is sitting over there.

Alternative 1. Roane County ERC went on the record as supporting Alternative 1, monitored natural recovery. Roane County CAG went on record as supporting monitored natural recovery. Joni Morgan in her comment says that private citizens supported monitored natural recovery. Lynn and Don didn't explicitly state a reference for that.

In the action memo that we approved, TVA prepared and EPA and TDEC approved, it was released on Wednesday, yesterday, I guess. Besides the action memo that describes the selected alternative, which is Alternative 1, monitored natural recovery, we do have

responses to every comment received. All right. I will say please read them. You know, that's our official response to how we think we addressed the comments that were received on this thing.

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There were -- kind of in a general rule there were two kind of comments received. There were comments specifically related to the engineering evaluation, cost analysis stuff that is Phase 3, river system stuff that I have the authority to address. Those comments were generally -- we would like a 30-day comment period on the action memo. Once it's signed, we will grant that. I'll show that on the next slide.

We had a comment also that came from ERB and the CAG that they would like us to have formal public meetings regarding the annual monitoring. When the annual monitoring program, the data is released, they requested that we have formal meetings on that to talk about it and discuss it. We're certainly not opposed to that. We will entertain that.

I think we're going to take that, you know, kind of year by year. If there is a tremendous amount of interest, we will certainly have forums just like this where we talk about data. Because I get really excited about this stuff, so I don't have any problem with that.

If the interest isn't as much, we will certainly meet individually with the ERB. We fully plan to continue to cooperate and coordinate with the CAG.

We're committed to doing that, if we need to do so. But at the very least absolutely those monitoring reports will be released as part of the public record. They will be posted on the EPA webpages and they will be posted at TDEC and TVA webpages. You know, they won't be a surprise. We won't sneak up on you.

We're not going to try to hide this data from you.

So, you know, probably not a lot of suspense here. You've already read about it in the paper. After considering all those things, we have decided, EPA has

approved and TDEC has concurred to go with monitored natural recovery for this.

I think it's important to note that there was a precedent set back in the '95, '97 time frame. DOE has done similar studies. DOE has been up here in this area for decades looking at their legacy issues in the Clinch River system and the Watts Bar Reservoir. They issued similar decisions, what they called records of decision in '95 and '97 very similar to what the remedy is, which is a monitored natural recovery remedy.

I think the big thing that we have going for us besides that precedent that has been established is that through this two-dimensional modeling, this sediment transport modeling that I discussed, this system is net deposition. All right.

It's a lake. It's a big bathtub. It's 39,000 acres, 770 miles of shorelines. If you take the system as a whole, Watts Bar is going to accumulate sediment over time. If you look at the whole lake, it's about a half-inch a year over our 30-year

simulation.

If you look at the areas that we're most interested in where this ash is currently at, in the Emory River reach we're looking at, you know, upwards of 50 or 60 inches which, what is that, 5 feet of sediment over 30 years. That's a good cap. Down in the Clinch River, you know, we're looking at anywhere from 10, 12, 14, 16 inches, you know, of material coming in over the 30-year period. So about a foot over the 30-year period.

So that is the material, the fresh load coming from the Emory River and the Clinch that we're going to be relying on to mix with the sediment out there and to provide us that protective cover for the bugs.

There's been a lot talked about on this 50 percent ash mixture. It is not a clean-up goal for us. We have numerical clean-up goals established for sediment and selenium and we also have tissue monitoring end points where we're going to be looking at concentrations in the bugs

and in the mayflies to make sure that they're protected and the birds that may eat them.

But what we have seen is that in our sediment tox tests in the lab that I mentioned is that once you get below this 50 percent mixture, if you have 60 percent native sediment and 40 percent ash, the bugs seem to do okay. So it's kind of a rule of thumb that we're using. It's kind of one of those, let's say, non-numerical targets, it's a non-enforceable goal, but it's what we're trying to get to because we've seen some evidence that once you get to that mixture level of that kind of one to one, everything seems to perform okay and behave properly.

So our modeling suggests that that's going to take about 10 years. One of the big things that this remedy -- I think one of the big advantages that it has going for it, if you compare it to Alternative 2 and Alternative 3 and we talked about this in the tradeoffs, is that you can spend \$50 million to cap it,

you can spend \$180 million to dredge it.

We've proven that you can dredge this

material. We've proven on other jobs

that, yes, you can cap this material. But

by the time you build the infrastructure

to support those remedies and by the time

you actually perform those remedies, you

don't really appreciate or really

accelerate that time to achieve

protection. Okay.

You might buy yourself a couple of years, but is that risk reduction for that money spent, is that really worth it? And I think because the risks here are rather low, all those factors have really been considered into EPA as well as TDEC's, you know, preference to go in here with monitored natural recovery.

Now, going forward what's the big thing we have left to do? For Phase 3 the big thing we have left to do is to develop the long-term monitoring plan. Okay.

What are we going to monitor for up to 30 years? We're going to do this annually and every five years we're going to take a

step back through a process called five-year reviews and we're going to ask ourselves, is our monitoring program still telling us, giving us the information, you know, we're looking for.

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This plan has not been developed. The initial meeting that EPA, TDEC and TVA are going to sit down and talk about this is scheduled for early January. Once we kind of start getting -- we have a real good start, we think. I can tell you right now that what's going to be in the monitoring program is probably at seven locations. There are going to be four locations in the Emory, two locations in the Clinch and then we'll have to pick a background station. So at seven areas we're going to be monitoring sediment concentrations, mayfly concentrations, again, bugs that live in the sediment and then, you know, also these high level azteca, the anthropoids as well as the midge and fish. We realize people are interested in fish, people catch fish. You know, we're going to be monitoring,

you know, fish for a number of years to see how, you know, any concentration trends are going to, you know, turn out with them. So I can tell you with about 100 percent certainty those things will be in that monitoring plan.

We will likely redo the sediment transport work every say five years to make sure that the initial model predictions that we now have are kind of matching up to what we're seeing. And we've predicted upwards of 5 feet in the Emory, we've predicted a foot in the Clinch. We're going to reevaluate that with bathymetry, you know, looking at the lake bottom to see that the model predictions are actually adding up and agreeing with what we're actually seeing in the field.

So I will commit that once that monitoring plan kind of gets approved and blessed by EPA and TDEC, I will commit to putting that out to the CAG and ERB if you all are interested in looking at that, to continue our public interaction here.

Before we finalize that, I will commit to throwing that out to you all and giving you a crack and see if you think this monitoring plan is sufficient. We've got no problem with that.

The monitoring on average is, what did we say, \$550,000 a year for 30 years or so. If you then bring that all back into a net present value in today's 2012 dollars, the net present value of that is about \$10 million. I think I'm about done. I've got two more slides, Michael.

All right. So where are we at? As I mentioned there was a request from our commenters that they wanted another opportunity to comment on the selected remedy. We have granted that. We're going to start the comment period tomorrow. Right? The 9th is tomorrow. We're going to run that 30 days through the 8th. Beside written comments we'll take during that 30-day comment period, the reason we have a court reporter here tonight is that you can stand up tonight and grab one of these microphones and our

court reporter will record your comment for the record.

If you prefer e-mail, please send them to that e-mail address. That's the same e-mail address we used for the 60-day comment period. If you prefer snail mail, please use that P. O. Box.

All this information is available in these following places. TVA's webpage, my webpage, we have an information repository set up at the Kingston and Harriman libraries. If you'd like to have your own personal copy -- some people have taken us up on this. If you want your own digital copy, we have some people in TVA that will get you your own CDs on that thing.

so if you're interested, I encourage you to read our responsiveness summary, how we addressed the comments that we did receive. You know, of course, we're going to continue to interact with the Roane County CAG and ERB as requested. Those folks have shown a lot of interest. They represented most of the attendance at

our ecological workshops. I think looking back on it, maybe back in January, the Roane County CAG suggested that we hold a series of workshops to try and educate individuals on this that want to learn more. Looking back at it in hindsight, I think those workshops, we had a series of six of them, were well attended, 15 or 20 people, and they were all very interested and I think that helped. I think it helped a lot. I think it helped the people that don't have the environmental science or the engineering backgrounds. think it helped to communicate what we were seeing with regard to fish health, with regard to bird health. I think it probably did, you know, eliminate a lot of the comments that we could have received during that 60-day comment period.

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So I know that the next CAG
meeting, I think, Joni, is set for
December 6th. Those are open to
everybody. Of course, EPA and TVA and
TDEC attend those and all the CAG members.
But they're not closed. They're open to

the community. So if you are interested and want to continue to follow this project, we encourage you to work with Joni Morgan and her CAG colleagues to get involved there.

I think otherwise from that, I am done talking here for the formal presentation. We are now -- we'll move into kind of a Q and A. Carolyn Hunter is going to help me facilitate the Q and A session.

everyone. Thank you for coming. So we have a microphone here and I can also bring you over a microphone if you would like to make a comment. We have a court reporter and so when you give your comment, make sure you state your name clearly so that she can get it into the record and provide your comment or question and we'll get our comments started for the action memo. So, sir.

LOWELL MALMQUIST: Yes. I have two questions. The first would concern EPA.

I live just below the junction of the

Clinch and Emory and the silt comes in.

Is there any problem with me digging out under my boat lift so I can continue to remove my boat because it will fill up and I have to dig out under there? And if I can, what do I do with the sediment?

Again, I had 2 and a half inches of fly ash outside the end of my dock when the spill occurred.

The second question concerns not

EPA, but TVA. Prior to this evening and
today or this week when someone came to
look at my house to buy it -- and I would
wish to buy it -- I wish to downsize -and they say, is there fly ash out there?
I said, yes, TVA would remove it. Now I
have to say, no, TVA will not remove it.
This is going to decrease my property
value.

My question goes back then to TVA.

Since my property value decreases, I will
be before Roane County Equalization Board
to re-ask to have my property value
decreased which will decrease the property
tax coming into Roane County up and down

1	the system. The question goes then to
2	TVA. Are they going to compensate Roane
3	County for the loss of property tax due to
4	the fact that property taxes will decrease
5	by them not cleaning up all of the fly ash
6	as they told us when this spill happened?
7	Thank you. My name is Lowell Malmquist.
8	CRAIG ZELLER: Thank you for your
9	question. The first one I can handle.
10	I'll take a stab at that. You said you're
11	on the Clinch?
12	LOWELL MALMQUIST: I live just
13	below the junction of the Clinch and the
14	Emory. When you come down I'm sorry.
15	I live below the junction of the Clinch
16	and the Emory. If you know where Food
17	City is. I live immediately across from
18	Food City.
19	CRAIG ZELLER: Ladd's Landing. Got
20	you.
21	LOWELL MALMQUIST: Yes.
22	CRAIG ZELLER: That area, as I
23	mentioned, earlier in '95 and '97 the
24	Department of Energy issued similar
25	alternatives for this river system. My

understanding is there's a work group,
it's called the Interagency Work Group,
that represents -- there's a DOE contact,
there's an EPA contact and a TDEC contact.

And if there is dredging and
maintenance work around your dock area, I
believe you're encouraged to get ahold of
those people and kind of get that
blessing, you know, ahead of time before
you do that. They can help you with -it's not saying you can't do it. Because
I think we want to encourage and we want
to accommodate existing recreational uses
that involves using your boats. I
understand how important that is.

But before you do so, I would encourage you to make a phone call. I can help you with this. I would encourage you to make a phone call to those folks to make sure that, you know, you kind of get their buy-in, make sure that what you're doing is not, say, violating or causing them any heartburn.

Now, with regard to your second question, I'm going to defer most of that

the time, you know. I declare -- you know, my agency comes in and declares this site a Superfund site and now Mrs. Jones can't -- she wants to retire and move, she wants to leave, she wants to downsize and she can't sell her house. And, sir, what we tell these folks is be patient with us. Now you're on the national priorities list. There is this perception that your property has been impacted and that, you know, people may be at risk. But when we come in and clean it up, now you've got, you know, something to show prospective purchasers that there are no risks.

In this case the cleanup is
monitored natural recovery. But I've got
boxes of data. I mean I could fill -they stand probably this high. I've got
boxes of data that says there are no human
health risks posed by living on the Clinch
River and using that water or using that
water body, other than the fish
consumption that we talked about because
of the legacy issues. I've got reams of

data that show the ecological risks are pretty low.

So I tell real estate agents in areas like this all the time that if you have concerns and you're trying to sell your property and you can't get rid of it, call me, send me an e-mail. There's been numerous people over the last four or five years where property appraisers have come in and devalued their property because they were 2 miles up the Tennessee, you know. I've had to write letters and TVA has written some of these letters to say, well, you're 2 miles up the Tennessee and there's no way that your property could be impacted by what happened up there on ERM 2.5.

So if you have problems like that

-- and that's part of my job, to be quite
honest with you, is to eliminate or
alleviate or ameliorate those fears of
anybody that's moving into the area or
anybody that's trying to buy real estate
or those types of things. So I've
encouraged folks if you have those

problems, a lot of this is education, you know, taking the time to sit down at the kitchen table and explain to people what the risks are. I can do that.

Now, when it comes time to cut checks for any potential real estate damage or property reparations, I can't help you out there. I don't have that kind of authority. I don't have that checkbook. You know, my job is to work under CERCLA and to eliminate these risks and make sure it's adequately protected, the human health and environment.

I think we're deferring those comments -- I know we're deferring those comments to TVA people. After this meeting there are about a dozen folks here that could probably help you out with that, sir. We can get you right in contact with the right person.

LOWELL MALMQUIST: May I finish my comments? I spent three years after retirement, I'm a retired veterinarian, working with ATSCR, looking at pollution coming out of Oak Ridge. There is no

pollution coming in there. I understand that. It's a perception that people have coming in here.

CRAIG ZELLER: Yes.

newspapers kill us and they've hurt our property value. I'm looking at Ron Woody here. Property taxes, everybody is going to line up. And that's my question and it's not to you. You're the 800-pound gorilla in the room. I'm asking for TVA to give us an answer, are they going to recompen -- are they going to compensate Roane County once again for the drop in property taxes because you are not going to clean up as you said you were when you started. That's my answer to TVA.

You said you would clean up and make Watts Bar Lake as it was before.

You're not and I understand that. I'm not talking about toxicity issues. I'm talking about perception that TVA is not doing what they said they would do. I'm not questioning you. Thank you.

CRAIG ZELLER: Thank you.

BOB GILTNANE: My may is Bob

Giltnane and I'm the owner of Sail Away

Homes and Land and Real Estate Company. I

kind of am to the sale of lake property on

Watts Bar Lake what you are to the bugs.

CRAIG ZELLER: Okay.

after the TVA ash spill, a representative of TVA visited my office and made a very direct promise that we would be made whole. It's a fact, and I've discussed this with Ron Woody, that Watts Bar Lake's market share of the lake property buyers that are coming into this corridor -- I'm talking about the buyers of Fort Loudon Lake, Tellico Lake, Melton Hill, Chickamauga -- of those 100 buyers that came in here in 2007, Watts Bar Lake enjoyed about 28 of those buyers. It increased every year for five years from 8 percent to 28 percent.

Now we're -- excuse me. We have four years of consistent drop in market share compared to these other lakes. This market share evaluation takes out national

real estate trends, national trends. This is the retirees that are moving to East

Tennessee are going to decide which lake to buy on. And mysteriously -- not so mysteriously that changed abruptly with this event.

I want a question put forth to TVA why they're insisting on not going to mediation with the business owners. I've personally lost about \$400,000. Nobody is talking to us month after month after month. It's real. And it's just not property taxes. When I sell to somebody, they're bringing their money to our banks, they eat in our restaurants, they bring other buyers. The reason market share keeps dropping is we had no market share in 2009.

I just want TVA to bring it back up and put a priority on it. Because we're not bugs in the sediment. We're people with families. We made our decisions to make our living this way. Not just my company, but we've got marinas, The Landing is out of business, closed, UG is

bankrupt, Bayside is bankrupt. The financial implications of this are huge.

I just want TVA to bring us to the top of the pile. And you look at these alternatives. Come and talk us to about alternatives. Don't talk to us and say, we want you to take us to trial. No person that's ever gone to trial has ever been made whole. You leave damaged. Then come to my office and sit with me and I'm a reasonable guy. I don't want to be made better. I just want to be made whole and I want my county made whole.

It just seems to me we're spending all of this money on bugs. I'm a human being. This guy that lives on this river, he spent his retirement income to come to our beautiful county. But the human beings here, we're just being shoved under the rug.

I stood up at the first TVA meeting
I went to and I said, I just want you to
answer one question for me. Is there any
way I can go and borrow money so I can
live through this, emergency money? Will

you just tell me yes or no? I was promised I'd get an answer. I never have. Nothing has come our way. Nothing at all. So I'd like to be brought back to the top for the businesses in the area. The businesses are never spoken about, but we're suffering. Thank you.

CRAIG ZELLER: Thank you for your comment.

ANDY AVEL: Hi. I'm Andy Avel and with the CAG. Craig, your stack of data that you have probably doesn't include perception, which as we know is as valid as fact. But it also probably doesn't consider combined health effects from multiple contaminants in the river and it probably doesn't look at multigenerational, long-range health effect data. And we won't know that for years and years. You know, that may not show up until our grandkids' kids have the opportunity to be exposed or to receive some damage from exposure that we have.

But my question to you is, you said there were two sets of comments, two types

1	of comments. So one type you can respond
2	to, you have the authority to respond to
3	and you did. You did a really good job.
4	I really appreciate that. But there are
5	another set, another type of comments that
6	we haven't got a response to. Is this a
7	TVA document or an EPA document?
8	CRAIG ZELLER: TVA prepared, EPA
9	approved with TDEC concurrence.
10	ANDY AVEL: Is TVA going to have
11	a public meeting to explain how they
12	responded to all the comments?
13	CRAIG ZELLER: I'd have to ask TVA
14	that.
15	ANDY AVEL: Can we ask them?
16	They're here.
17	CRAIG ZELLER: First of all, just
18	for a second, why we split that up is
19	that
20	ANDY AVEL: I know why you split it
21	up.
22	CRAIG ZELLER: Because it's really
23	a CERCLA statutory thing.
24	ANDY AVEL: Exactly.
25	CRAIG ZELLER: It is. If it's

stuff that I can fix, that I have the authority and the ability, that's my job.

ANDY AVEL: And you're EPA.

CRAIG ZELLER: Right.

ANDY AVEL: So my question is is

TVA going to have a public meeting similar to this one to explain how they responded to the comments and give people the opportunity to ask them questions as to how they did respond to the other set of comments? Because I believe the other set of comments, the other type of comments, were a lot more extensive and hit a lot closer to home to what's been raised so far. Can we ask TVA? Is there somebody from TVA? Bob, you're here. Can you respond to that comment?

BOB DEACY: Whether it's science related, community related, after the meeting we'll have the right folks sitting over there at the table to address community-related comments. If we can provide an answer tonight, we will. If not, we'll get back in writing. So the table right over here, you'll see a group

1 of folks right there. 2 ANDY AVEL: So is the answer no, 3 you're not going to have a public meeting? 4 BOB DEACY: This is part of the 5 public meeting and that's why TVA came and 6 we're going to be there to address some of the comments and we'll take them one by 7 8 one. 9 ANDY AVEL: I still don't understand, Bob. Are you going to have a 10 11 public meeting like this to go over the 12 comments that EPA does not have the 13 authority to respond to but you do and 14 tell us how you responded to those 15 comments and give us the opportunity in a 16 public forum to ask you those questions 17 and receive answers? 18 BOB DEACY: At present we haven't 19 planned a public meeting. We've decided 20 to participate in these meetings. Again, 21 we have folks here on hand to address your 22 comments. 23 ANDY AVEL: Can we request that you 24 do that? That you provide --25 BOB DEACY: Yes, you can submit

1	that request.
2	ANDY AVEL: How do I do it?
3	BOB DEACY: In writing tonight.
4	CRAIG ZELLER: Joni.
5	JONI MORGAN: Hi. I'm Joni Morgan
6	with the CAG. I have one comment and one
7	question. My question is very brief about
8	the north embayment. You talked about
9	making the little fish holes and hidey
10	spots in the middle embayment. You were
11	talking about doing that in the north
12	embayment, but the north embayment is
13	full.
14	CRAIG ZELLER: Yes.
15	JONI MORGAN: Are you going to at
16	some point drop the water level so you can
17	do that there, also?
18	CRAIG ZELLER: That's certainly on
19	the table for discussion, yeah.
20	JONI MORGAN: Okay.
21	CRAIG ZELLER: We were planning on
22	doing that. We had a big flood and the
23	river backed up in that. Also, we had
24	water and we decided, yeah, that looked
25	pretty nice, let's hold that there for

now. But, yeah, that's all kind of under what we're talking about in the Phase 4, all the restoration work, the new park in Lakeshore and all of the Berkshire work. Yeah, that's still being contemplated.

JONI MORGAN: Okay. My comment was this: I think it's very difficult for most of us who are living through this to separate TVA and EPA. And so when we come here -- I had several other questions and some of this discussion has brought it to my attention that it's really nothing that you can address. It has absolutely nothing to do with the CERCLA work that you've been doing. Which I think you guys have done an incredible job of. I mean everything looks really nice for the most part in terms of the lake and everything.

I think at one point we -- there was some publicity money that had been set aside and I'm not sure where that had come from or gone to. But it would be so nice if there was some way -- and maybe this is TVA, I don't know -- some way to advertise to the world, not just -- particularly to

our community because so many people are still -- all they hear is the negative, all they want to hear is the negative, they want to feel bad about TVA because that makes them feel good, I guess, and they know that it's not going to happen overnight and so they just want to feel negative.

But we need something big,
something elaborate to tell the world and
remind all of us that you guys have made a
lot of progress, that things are better
than they were on that night. We're still
not back to where we want to be and it's
still going to take a while.

But for these people going out to look at property, they need to understand that we've made a lot of strides and that it is better and that it will continue to get better. But if all they hear from the community is, oh, no, you know, it's just -- it's the same old stuff. Why go to these meetings, it's the same old stuff.

Well, they're hearing EPA, not TVA.

They're not always getting the answers

that they're really looking for because we have this separation here.

CRAIG ZELLER: Yeah, that's a good point. It's probably clear to me because I have to --

JONI MORGAN: Because you work in it.

understand where my boundaries are. And so I guess it's fairly simple. I'll try and explain it. Anything related to cleanup of the environment. My job at the end of the day is to make sure that this particular project is adequately protective of the human health the environment. That's my overall mission statement. This remedy will get us there.

Now, anything related to the lawsuit, you know, the recent court cases that was found, you know, by the East Tennessee District Court, we have deliberately not been involved because we were not named in that suit. So I'm under strict orders from my lawyers, you're not in that, kid, you say nothing, you know.

So we're not involved in anything litigious or anything legal or anything with the lawyers. I can't help you.

JONI MORGAN: Right.

anything associated with assessment of potential property damage caused by the spill and then potentially any reparations or, you know, payback for that potential damage, you know, all the 158 properties, whatever they bought, you know, we haven't been involved in that at all. Those have been really easy for me to say, you need to talk to the TVA people because, again, we don't have that checkbook, you know.

We don't have any authority. I have no --I'm powerless to do anything about that.

JONI MORGAN: Well, I think the thing is, though, that this is a public meeting, Mr. Deacy said that he is here with TVA people to help address problems.

And so if we can bring those points up, you know, we're not hammering you, we're hammering whoever can help with that. And the comments are going on the record

because the court reporter is noting that.

I guess we just need to get better
feedback from that side of the house, so
to speak.

CRAIG ZELLER: Sure.

JONI MORGAN: If you're looking at this whole thing.

CRAIG ZELLER: Sure. I understand that. And I think -- I believe the way TVA wants to handle that is at the end of this when the questions wrap up, please hang around and maybe there could be a path forward established somehow to start to get that dialogue going on.

MS. JOHNSON: Well, I think the problem with that is that then it becomes not a public meeting, it becomes an individual situation with a kind of a one-on-one thing. And I personally have learned more about this whole system and how it affects people by listening to other people's concerns and hearing how they're misunderstanding things or how they're not getting the whole picture because of whatever.

1 But it would be really nice, I 2 think, if we could have more public discussion about the other aspects of the 3 job that are affecting so much of us. 4 5 that's my comment. 6 CRAIG ZELLER: Okay. Thank you for 7 your comment. Mr. Beets. 8 TROY BEETS: Hi, Craig. My name is 9 Troy Beets. I have two things. One for 10 you on the 30-year monitoring program that 11 you're going to do, about that. We have a 12 little deal set up that whenever there's an increased water flow due to a flood or 13 14 whatever that comes down the Emory, we get 15 our drinking water checked again. I would 16 like to suggest that if there is an incident that makes huge water flow down 17 18 the Emory that you don't wait until you're 19 scheduled times to monitor it. 20 CRAIG ZELLER: Okay. 21 TROY BEETS: You think about it. 22 The other thing, Ms. Morgan, yes, there is 23 a million dollars set aside for image 24 repair. 25 JONI MORGAN: Good.

MR. BEETS: And the TVA Economic

Development Foundation has that money set
aside and when it gets to the point to
where Mr. Zeller gets his stuff done and
we can make some pretty pictures of before
and after, I think we'll be coming around
to show people how the best way,
Mr. Giltnane, is for us to promote this
area again.

But the money is set aside and nobody can touch it for anything except to do public image repair. It's sat there for three years. It's resisted any type of change or if somebody wanted to do something else with it. We realize, we realize that there is a lot of image repair that needs to be done. Because as my good friend Pete Malmquist said, it's perception.

Now, how is the best way to change people's perception of what happened here and where we are now? We're going to be asking people that. I think one of the best answers that I hear is we'll have -- bring people in here and show them what

we have done, what TVA has done, what EPA
has done. Show them the records that
you're seeing tonight where there is no
damage.

I don't think that we can call CNN
in here and tell them that we've done
this. Now, everybody believed CNN when i

in here and tell them that we've done this. Now, everybody believed CNN when it come to we were the bad people. But for us to try to get CNN to put something out that says we're great again, I don't think that's going to happen. But we'll be coming to you to ask you how, how do we repair the Kingston ash spill public image problem.

PUBLIC SPEAKER: Call BP.

MR. BEETS: Call BP? And that may be what we need to do, Frank. But I don't think it's time yet. I really believe that when we get something done to where that we can brag at what we've done and show it, I think that's what will happen. Thank you.

CRAIG ZELLER: Thank you, sir.

RON BERRY: My name is Ron Berry, county commissioner, Roane County.

Obviously perception is huge. I can remember I think the headlines was "Largest Disaster in History,
Congressional Hearings." So Roane County,
Tennessee was at the forefront of the news for -- we had a pretty good window there and unfortunately it wasn't the kind of news that we wanted to generate.

I live on the lake probably

20 miles south down toward White's Creek.

I had relatives who would come to my house
before this spill and they didn't want to
swim in the water because of what they'd
heard from the DOE. They certainly aren't
going to get in the water now at my house
or places adjacent.

I think -- and we talk about this perception with the million dollars and that's great. A million dollars is a lot of money. But to repair the kind of damage that I think we have undertaken, it's probably not a drop in the bucket.

It's hard for you to carry around all of this information that we have to share when we get questioned about what's

happening, how is our county going to be made whole again? Obviously, we've -- we were granted a lot of money to try to help us. But that's not -- you know, that's not the real problem.

I think the last time that I checked, there were three sales of real estate on the north side of the interstate. That's in Ladd Landing, that's the lakefront that he's talking about. That's prime real estate on the water over there. And I think those three were probably folks from TVA who were relocating from Swan Pond. They had been paid, so they were coming over, buying property there.

We're going to be restored, as

Mr. Kilgore indicated on the first night

before a packed room -- and obviously

where that interest has gone now as a lot

of folks I think are just worn out with

where we were and what's taken place. I

don't disagree that perhaps the best thing

is to leave it. But that's saving TVA

\$38 million. So, again, where are we?

CRAIG ZELLER: Right.

RON BERRY: And I think that's why we need an open session with TVA folks so that everyone in this county has an opportunity to hear it straight from them. And the sooner we can get on the road to being able to have good information and being able to get folks in here to see and to have a presentation without perhaps a lot of the terminologies and things, that we can just show what's happened over there, like your slides generate, and like what's going to happen. Because TVA does have some plans over there for our county, which we appreciate greatly.

But we just need to let all of our folks in this county -- we're responsible for the folks in our county and we need to be able to answer to them and to be able to protect their interests as the leaders of the county. So that's what I would hope that we can do.

CRAIG ZELLER: I appreciate your comment. You know, I can't really address

1 the make you whole comments and concerns 2 like that. But one thing I would like to just touch on is this perception versus 3 4 reality. I understand perception 5 sometimes does trumps reality. It's hard 6 to convince people otherwise. 7 But the one thing I want to say is 8 swim in this lake. If you're 20 miles 9 down and you said you've got friends that 10 come and visit and they won't swim, you 11 mentioned you're 20 miles downstream on 12 the Tennessee River, that was never impacted by this spill. I can't comment 13 14 on the DOE. But it's quite a ways down 15 there. My guess is, it's a guess, that

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I have lots of facts and unfortunately it is contained in boxes and reports that probably stacks this high.

But what that says is that it's safe to swim.

you're not largely impacted by anything

the DOE did up at Oak Ridge.

PUBLIC SPEAKER: Just don't eat the fish.

CRAIG ZELLER: It says don't eat

the fish. You know, and we caution you to, you know, heed those advisories. You know, limit the -- if you are going to eat the fish, please limit the amount you do. But that's the risk.

We looked at to take a very conservative standpoint -- and you may have missed all this -- but we assumed in our human health risk assessment that you could drink water unfiltered from Watts Bar. That turned out to be -- no one is going to do that. But if you wanted to, you could. Again, no one is drinking unfiltered lake water because the City of Kingston water tastes much better, you know.

But I swim, I kayak. I'm up here quite a bit. I recreate in the water all the time. So that's the perception that I want to kind of -- you know, we deal with this everywhere, it's that, oh, no, oh, no, this is bad. And eventually, you know, we roll our sleeves up and start digging and we fix the problems. And that's what I'm here to do and that's what

Leo was here to do is fix the problems.

And I'm here to say today, please enjoy, recreate on this beautiful resource. It's safe to beach comb, it's safe to swim. It's just not recommended that you eat a lot of fish. Otherwise than that, we're open for business on the recreation side, you know.

I understand. I empathize. It takes time to kind of turn that Titanic, you know, to break down the perception and get it back to reality. But like I said, I kayak, I swim in that water body and I'm not worried about it at all. And that's what I tell prospective purchasers.

I work on a lot of jobs with PCB contamination everywhere else. People, real estate agents call me all the time, hey, I'm moving down from the New England area and I want to live on this lake.

Would you buy it? Yeah. I think this place is beautiful. I'd buy a house up there.

So, yes, sir.

1 FRANZ RAETZER: My name is Franz 2 Raetzer. I am not directly affected by the spill. But with the discussion here 3 and from what I read before, I have one 4 5 big question and it belongs to the 6 shoreline. 7 As far as I understand now is that not all ash has been removed from the 8 9 shoreline. Is that correct? CRAIG ZELLER: Yes. That 500,000 10 11 cubic yards we talked about is in the 12 channel. 13 FRANZ RAETZER: Yes. And that can 14 be anywhere from half a foot? 15 CRAIG ZELLER: Some of that's in 16 the channel and some of that's on what we 17 called emergent sedimentation, stuff 18 that's exposed a low water. PUBLIC SPEAKER: So if a child 19 20 steps into that shoreline and depending on 21 the water level, it might be dry or it 22 might be wet looking, and takes a handful 23 of that ash and eats it, it is real ash 24 the same concentration as it was in the 25 dredge cell. Is that correct?

CRAIG ZELLER: Not quite correct.

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We don't -- we've got -- what we have left in that river system is not pure ash, you know. We have what we call sediment mixed with ash, or smash. Now, to address -- if I think I know where your question is going, we evaluated the scenario of what we call beach combing, that when the water level drops to 736 in the winter that people would be walking on the now exposed sediments that were under water in the high pool. We assumed child, adolescents and adults would be walking along the dirt, picking up arrowheads or clam shells or whatever and that they would incidentally eat sediment. So we've looked at that.

They would get bad sediment rubbed on their skin, they would eat I think 100 grams a day per exposure. I would argue that, you know, you might eat a little bit of sand or a little bit of residual ash, but you're probably not eating spoonfuls of it. But, again, when we do is human health risk

1 assessment, it's extremely conservative. 2 To answer your point or answer your question, that beach combing scenario, 3 4 walking in those exposed mud flats at low 5 pool, it's fine. We've looked at that and 6 we've quantified that. Again, that rec --7 that's kind of along the recreation 8 scenario, that's A okay to do. It's 9 within our acceptable risk range. FRANZ RAETZER: But lead level in 10 11 that ash is above the safe limit. 12 CRAIG ZELLER: Well, that hasn't really become an issue here. From a human 13 14 health standpoint, the constituent that we're most concerned about is arsenic. 15 16 Lead has not been a driver here for us for 17 our risk assessment. 18 FRANZ RAETZER: Okay. Because 19 they have to remedy the Brownfield in 20 Knoxville where there is some chemical 21 contaminations and there they have to 22 remove everything until they get to clean 23 ground. 24 CRAIG ZELLER: Right. 2.5 FRANZ RAETZER: And so you couldn't

convince me that this shore ash is really not that dangerous and that is not the perception then from a new guy that says, well, I don't want anything that when my child walks out there, it's really contaminated soil.

CRAIG ZELLER: Right. Again, it's in that perception/reality. It's a difficult thing to address. But I can say with 100 percent certainty, we have evaluated that risk for walking those beaches and those risks are within our acceptable risk range.

it's okay to have what you have used all of this dredge water that came out of when that ash was drying and were people -therefore it was more safe. Okay. But this area where really that ash is still lying there, I think -- I think you will have to remove that ash down to clean sand about -- I would say to about 3 feet of below water level. So before that is done, then I don't think it's really safe.

CRAIG ZELLER: Thank you for your

1	comment.
2	DON SIMON: Craig, I've got one
3	question. What is the permanent dock
4	that's at the Blue Heron Island that's
5	been put in recently?
6	CRAIG ZELLER: The blue dock where?
7	RON SIMON: The Blue Heron Island
8	across from Curtis Humphrey's property. A
9	permanent dock has been put in at the Blue
10	Heron Island about mile marker 3.
11	CRAIG ZELLER: 3? 2 and a half?
12	DON SIMON: 2 and a half.
13	CRAIG ZELLER: Yeah. Heron Island
14	right off of Lakeshore?
15	DON SIMON: Yes. On the northeast
16	side of that island there's a permanent
17	dock been put in.
18	CRAIG ZELLER: I haven't seen that
19	yet. Michelle, have you seen that?
20	MICHELLE CAGLEY: No.
21	DON SIMON: To finish up here to go
22	along with what Troy said, yes, right now
23	maybe is not the time to start the
24	advertising campaign, maybe not at the
25	site itself. But one million dollars,

gentlemen, just try and buy a one-page ad in the little Roane County newspaper. Try and get some TV time. One million dollars for PR is a drop in the bucket. That is not going to bring this area back. You can't sell the beauty of the recreation and the aesthetics of the area with a million dollars. It's going to take more than that.

Now, to go along with what the gentleman next to me said on property taxes. 180 properties were bought by TVA. The inspector general's report, if I can remember the number, I think we got \$160,000 in tax money. 180 properties will never be back on the tax rolls. More properties will be sold.

In my particular neighborhood,
houses were up for sale before the spill
and they've been up for sale after the
spill. We've asked TVA in different
meetings for a hardship situation. And I
want this on the record. We have a
gentleman whose wife passed away. He's
had one looker in two years. He's reduced

the price. He's taken the boat out of it.

He's made extensive updates to the

property. He's taken the furniture out of

it. You can't get people to come out here

and look.

Now, to go with what Troy is talking about, why you can't do advertising at this point in time. I've moved here after living in nine different states. All my children live out of state. I have many friends that come in to waterski with me. There's one constant comment made every time they come to see me. In four years it still looks like a trash dump. And I say trash dump because Geocon has got garbage laying all over. The truck traffic is the same as it's been for four years. I know it's not four years. We're six or seven weeks from four years.

But those of us living in the valley of the spill north of where the cleanup is going on, we've been living with this crap forever. You can't advertise it because it looks like heck.

Do something to make Swan Pond Road look good. All this construction stuff could turn and go to the factory right off of 70 and take it off our public roads. Yeah, TVA says they're going to fix the roads eventually. But why ruin them in the first place when they could take it over the site?

We just spoke to some TVA people recently. When you're going to haul all this clay in, turn at the Gupton farm, come across where the ball fields are supposed to be and get off the public roads. There's a safe issue, there's a traffic issue, there's road issues.

It's like, again, we're talking to
EPA and we should be talking to TVA. I
mean we've got serious issues here. The
inspector general claims that he came out
and interviewed people. He never came
north of the spill. The inspector general
said that the dredges didn't run but from
7:00 a.m. to 7:00 p.m. We've got videos
showing that the dredge was running at
11:00 or 12:00 o'clock at night and TVA

1 didn't offer to move me out of my house 2 because of the dredge because it was 3 happening from 7:00 to 7:00. Those are the kind of things that 4 5 we need to talk to TVA about. It's why we 6 have this lack of trust that's going on here. 7 8 I mean, you know, the recreational 9 area, you know, we could argue health and 10 all these kind of things, but we've got 11 real issues. There's no way to get out of 12 this area if somebody's wife dies or 13 somebody gets sick, you can't afford to 14 stay on your property. We don't see the 15 TVA coming to the plate and doing what 16 Mr. Kilgore stated he was going to do and 17 that is make the property whole and take 18 care of the public. 19 This is a beautiful area. It's got 20 a lot to offer. But we don't see anybody 21 helping us bring us back to where it 22 should be. 23 CRAIG ZELLER: Thank you, Don. 24 Mr. Steve.

STEVE SCARBOROUGH: I'm Steve

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Scarborough. I've been on the CAG since day one. We started with a big mess and this whole thing is kind of just schizophrenic. There's two sides of it that are completely intermingled. But unfortunately from a legal aspect we've got the EPA cleanup side and the TVA legal responsibility side, you know. There's no way to in fact separate those two, but we have to deal with them that way.

CRAIG ZELLER: I understand.

STEVE SCARBOROUGH: And one of the things I have to say is that from the first day we had what I can very mildly call a big damn mess on our hands.

Anybody that was there and saw it in person realized how horrible the situation was.

I think the north embayment, if anybody hasn't been out there recently, I would encourage you to go because I have to say that even though we've butted heads maybe more than once even on a lot of details and stuff, I really like what I'm

seeing on that. The places and areas that have been remediated are spectacular. I wouldn't have believed that it was going to look that good and I'm as critical as anybody when it comes to environmental stuff.

At the same time for all the really good work that has been done to clean things up, it's been a really horrible job in making people whole. I was interviewed today and the news guy says, has TVA done a good job or a bad job? And the only thing I could say was, yes. You know, yes on the remediation.

I think there are hiccups and stuff. A lot of things didn't go as quickly as they should have I think, but we're moving along pretty well. It's taken a lot longer than anybody wants, but we're not just stuck in a tunnel anymore. There is light. I encourage people to go look at stuff up there in the areas that have been remediated and it's going to start happening fast.

On the other hand, TVA has done an

absolutely horrible job in making people whole. You talk about what they can do to help us. A million dollars is not going to touch the damage that's been done here from a perception standpoint.

If you want to help us, come to the table and mediate. If you can make homeowners whole -- we've saved you, what, about \$169 million between the most expensive remedy and the remedy that's actually been chosen.

CRAIG ZELLER: That's about right.

If you put that as a down payment on making people whole, that money would go in to the base level of Roane County's economy. It would go into the homeowners who have been harmed. It would let the people who are stuck in a house cover some of their lost value and get back out of it. You know, you would see a better boom to this county. The biggest economic shot in the arm that we could possibly have would be for TVA to come to the table and mediate.

You know, BPA -- BP was brought up.

Here is a foreign corporation that has -a foreign corporation that's come to the
table and mediated, spent money, made
businesses and homeowners whole such as
they could and yet our own government, our
own government agency who is supposed to
represent us is still fighting the very
people it's supposed to be helping in
court. This is ridiculous.

Let's get this done. You want to

Let's get this done. You want to start improving our public relations? Get these court cases out of the news. Let me quit writing about them. Let these reporters quit showing up at these meetings and hearing us say these things. Our problem is not with these guys and the cleanup they're doing. Our problem is with TVA, our own government, who is fighting us and not making us whole. Thank you.

CRAIG ZELLER: Thank you, Steve.

CAROLYN HUNTER: Are there any more public comments? We have opportunities for you guys to provide comments on the

1 action memo for another 30 days and you 2 can go to TVA or EPA's website to get it. 3 And any questions that you might have 4 tonight, there are folks here from TVA 5 that are going to be over at this corner 6 area that can answer questions and talk to 7 you after the meeting. 8 Does anybody else have anything to 9 Will you please state your name? say? 10 ROBIN HILL: My name is Robin Hill. 11 I live in Farragut at 11504 Mountain View 12 Road. My question is simple compared to 13 the rest of the problems you've heard here 14 tonight. But where can I find the 15 engineering information in the operation 16 and maintenance plan and the plan for the 17 retirement of this thing at some future 18 time when there's not a Kingston steam 19 plant running? Where do I find that kind 20 of information? 21 CRAIG ZELLER: You're talking about 22 post operation as a steam plant? 23 PUBLIC SPEAKER: Post operation. 24 Because what you've got is a -- for a 25 cemetery you've got -- you've got a

cemetery here for 30 years for ash that requires perpetual care.

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CRAIG ZELLER: As far as the landfill goes, the landfill that we're closing out that's going to get capped and closed, there is going to be a long-term monitoring plan for the whole cell closure. We're working with that. going to be conducted in accordance with TDEC regs. TDEC has a solid waste program. But we're going to meet all their requirements and there will be groundwater monitoring around the perimeter of the cell to make sure that there's not bad water leaking out into the There will be a regular program to river. make sure that the cap stays in place and the grass keeps growing, the grass gets There will be a regular program to mowed. inspect the landfill to make sure that we're not getting any settling, that we're getting --

ROBIN HILL: You don't need to go into all that. Just tell me where I can find it.

CRAIG ZELLER: Okay. It doesn't 1 2 exist yet. Until the system gets closed, 3 we've got about another two years. Once that -- we'll be working. That's 4 5 something that we have to do. It's not on 6 the front burner just simply because we 7 have two more years of work. But before 8 that landfill is closed out, there will be 9 a long-term O & M plan to take care of that landfill forever. 10 11 ROBIN HILL: My recommendation to 12 you, having been a project manager for 13 many years, is that you write that plan 14 now and give it to these people so they 15 can look at it. They're going to have to 16 live with it. Waiting until you're 17 finished is too late. Put it on paper now 18 and sketch it out and get some comments 19 back. You might learn something. 20 CRAIG ZELLER: Good suggestion. 21 Thank you. 22 MARTIN ROBERTS: My name is Martin 23 Roberts. I am 65 and I have lived here 24 63 years, okay, in that vicinity on Swan 25 Pond, Swan Pond Circle. I have two

1	children and raised them both on that lake
2	in a square-stern canoe. We've fished all
3	up and down that river. They learned to
4	swim. We've utilized that lake forever.
5	My son and I were going to fish the
6	morning of the spill in that slough.
7	Y'all call it the I can't think of the
8	name.
9	CRAIG ZELLER: Lakeshore Slough,
10	the east embayment?
11	MARTIN ROBERTS: The other one.
12	CRAIG ZELLER: Berkshire?
13	MARTIN ROBERTS: You call it
14	Berkshire Slough. Anyway, I had fished
15	the Lakeshore Drive slough the day before.
16	Okay. My son called me and said, dad, we
17	can't go this morning. I said, why? He
18	said, I'll show you. And I have yet to
19	get over that scene. Okay.
20	Yes, it does look a lot better.
21	Yes, I have caught fish out of Lakeshore
22	Slough this past spring, crappie. I'm an
23	avid fisherman. I believe I could take
24	you all the way through Chickamauga and
25	show you ash floating in little niches and

corners down there. The steam plant has been putting ash in that river since it's been there. Okay. We shoot fish in the spring of the year with a bow and arrow and it's there and it always has been. I don't know that it ever hurt anybody.

But it's just a heartache. I think

TVA owes the people on Swan Pond,

especially Swan Pond Circle. We have

lived with detours, trucks, gawkers since

day one. And I don't know. An apology

would be nice. But it is a hardship on

us. It has been. Hopefully we'll get

through it some day. Thank you.

CRAIG ZELLER: Thank you, sir.

CAROLYN HUNTER: If anyone wants to provide a written comment, there's written comment forms over there on that table, so if you want to provide something written or come and speak to the court reporter after the meeting, as well. So with that, I think that that --

PUBLIC SPEAKER: How do we submit a written request for TVA to have a meeting?

CRAIG ZELLER: Yeah. Try to write

1	it down right now, I would say and give
2	it. Yeah. Bob has got pieces of paper.
3	CAROLYN HUNTER: Thanks everyone
4	for coming tonight.
5	(PUBLIC COMMENT AFTER MEETING
6	ADJOURNED AT COURT REPORTER TABLE)
7	GAIL OKULCZYK: I submitted a
8	public comment. Apparently they didn't
9	get it. I submitted it by e-mail to the
10	TVA address that was given. So I would
11	have been a public commenter, not part of
12	the Environmental Review Board. So my
13	comment needs to be counted.
14	(MEETING CONCLUDED.)
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1	REPORTER'S CERTIFICATE
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3	
4	STATE OF TENNESSEE:
5	COUNTY OF HAMILTON:
6	I, Tracy A. Beamon, Certified Court Reporter and
7	Notary Public, do hereby certify that I reported in machine shorthand the November 8, 2012, Proceedings in
8	the above-styled cause; that the foregoing pages, numbered from 1 to 87, inclusive, were typed under my
9	personal supervision and constitute a true record of said proceedings.
10	I further certify that I am not an attorney or
11	counsel of any of the parties, nor a relative or employee of any attorney of counsel connected with the
12	action, nor financially interested in the outcome of the action.
13 14	Witness my hand in the City of Chattanooga, County of Hamilton, State of Tennessee, this 3rd day of December, 2012.
15	December, 2012.
16	Tracy A. Beamon, CCR-1003 My Commission Expires on the
17	18th day of February, 2015.
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